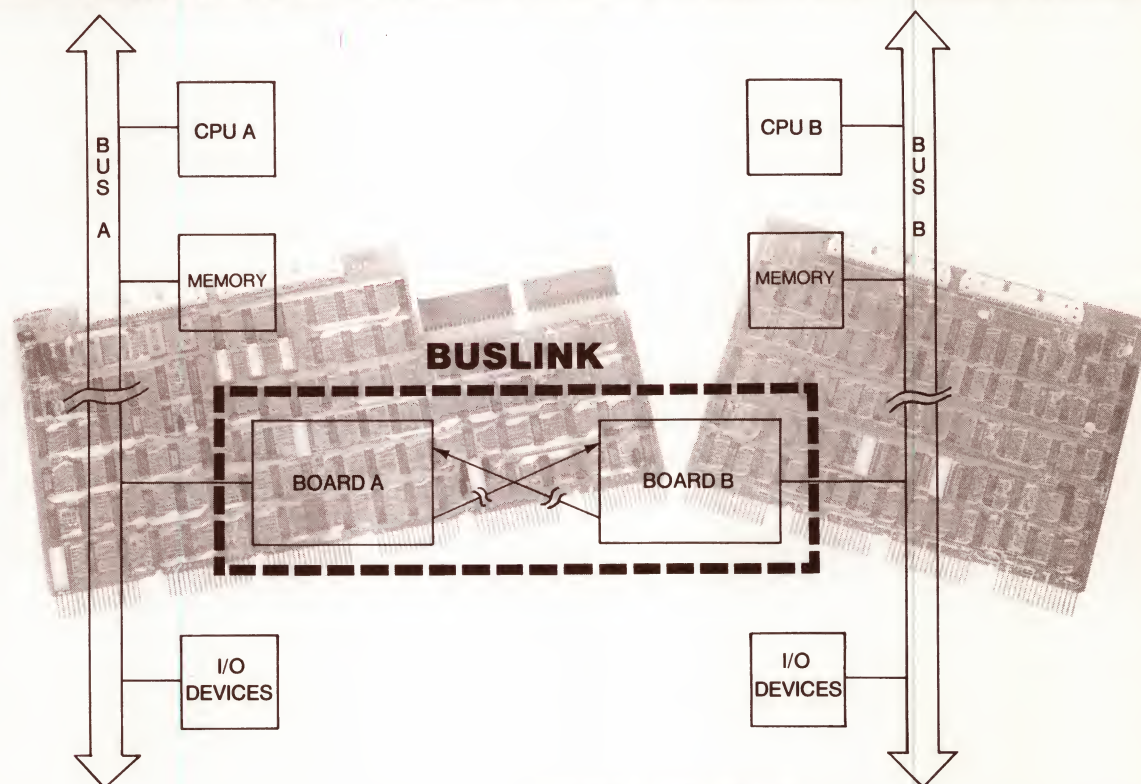


BUSLINK™ (Interprocessor Link)

The BUSLINK is a high speed, parallel, half duplex, DMA channel between two DEC* computer systems.



FEATURES

- The BUSLINK is composed of two ABLE INTERLINK interface boards and interconnecting cables which allow complete computer link operation between two PDP-11* systems, two LSI-11* systems, or a PDP-11 and an LSI-11 system.
- Three basic BUSLINK models suit a variety of applications:

BUSLINK/UNI for the PDP-11 requires one fourth the space and one fourth the power of its DEC equivalent, the DA11-B.

BUSLINK/LSI for the LSI-11 offers DA11-B features for the LSI-11

BUSLINK/U-Q provides a PDP-11 to LSI-11 system link.
- On-board switches for address and vector selection add flexibility to each BUSLINK without requiring jumpers
- The use of hysteresis receivers offers improved noise immunity between systems.

GENERAL DESCRIPTION

BUSLINK allows computer link operation between two computer systems. Using the DMA facilities of the two computers, BUSLINK transfers 16-bit parallel data at rates up to 250 or 500 thousand words per second depending upon the computer systems linked.

BUSLINK/UNI provides a data transfer channel between any two PDP-11 Unibus* systems. It is software and diagnostic compatible with the DEC DA11-B. BUSLINK/UNI consists of two INTERLINK/UNI modified hex-width boards and interconnecting cables. Each INTERLINK board plugs into an SPC slot of one of the PDP-11 systems. No backplane modification is required for installation if the boards are installed into the first or last slot of an SPC backplane.

BUSLINK/LSI provides a data transfer channel between any two LSI-11 computer systems. It consists of two INTERLINK/LSI quad-width boards and interconnecting cables. The INTERLINK/LSI requires a quad-width backplane slot in each computer system for installation.

BUSLINK/U-Q provides a data transfer channel between any PDP-11 Unibus system and any LSI-11 system. It consists of an INTERLINK-UNI which installs in the PDP-11 system, an INTERLINK/LSI which installs in the LSI-11 system, and cables to connect the two systems.

We reserve the right to improve our products at any time.

10063X08-1279

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BUSLINK and INTERLINK are trademarks of ABLE COMPUTER TECHNOLOGY

ADDRESSABLE REGISTERS

Addressable registers on each INTERLINK are:

Register	Mnemonic	Operation	Bus Address
Word Count	DRWC	Read/Write	7XXXX0
Bus Address	DRBA	Read/Write	7XXXX2
Control and Status	DRST	Read/Write	7XXXX4
Data Buffer	DRDB	Read/Write	7XXXX6

ADDRESS/VECTOR SELECTION

Address selection for each INTERLINK is via on-board pencil switches. Addresses range from 760000 through 777776 and are normally set to 77241X.

Vector selection is also via pencil switches and has a range of 000 through 774. The vector is normally set to 140.

PRIORITY SELECTION

For use with a PDP-11, each INTERLINK/UNI is shipped with a BR5 level interrupt priority. The priority level can be easily changed.

INTERLINK/LSI is fixed to a level four interrupt.

SOFTWARE SUPPORT

All BUSLINK models are software supported by RSX-11M, RSX-11S, DECNET-M, DECNET-S, and a handler is available from DEC for RSX-11D.

DIAGNOSTIC COMPATIBILITY

ZDRB, DEC's NPR Interface Test, is compatible with BUSLINK. (See Special Considerations.)

SPECIFICATIONS

Power Requirements:

BUSLINK/UNI 2.0 amps @ +5 volts per system
BUSLINK/LSI 1.5 amps @ +5 volts per system
BUSLINK/U-Q 1.5 amps @ +5 volts, LSI-11 system
2.0 amps @ +5 volts, PDP-11 system
(No other voltages are required)

Bus Loading: 1 unit load per system

ORDERING INFORMATION

Model	ABLE Model Number	Description
BUSLINK/LSI	10062-0	Two quad-width boards, maintenance cable, and set of two 25-foot shielded interconnect cables.
	10062-1	As above with 50-foot cable set in lieu of 25-foot cable set.
BUSLINK/U-Q	10063-0	Quad-width LSI-11 board, modified hex-width Unibus board, maintenance cable, and set of two 25-foot shielded interconnect cables.
	10063-1	As above with 50-foot cable set in lieu of 25-foot cable set.
BUSLINK/UNI	10064-0	Two modified hex-width boards, maintenance cable, and set of two 25-foot shielded interconnect cables.
	10064-1	As above with 50-foot cable set in lieu of 25-foot cable set.

SPECIAL CONSIDERATIONS

1. Some PDP-11 system software and diagnostics may not be compatible with the LSI-11 without software modification.
2. The INTERLINK boards are available for DMA interface operation on a single PDP-11 or LSI-11 computer.
 - The INTERLINK/UNI is a single modified hex-width board that operates with any PDP-11.
 - The INTERLINK/LSI is a single quad-width board that operates with any LSI-11

Both the INTERLINK/UNI and INTERLINK/LSI are system software compatible with the DEC DR11-B. They contain the DA11-B type logic on-board for ready conversion to use as BUSLINKS. For further information, contact ABLE.

3. For use with INTERLINK/LSI, the quad-width LSI-11 backplane must provide Q Bus on the A and B connectors but may provide Q Bus on the C and D connectors as well.

ABLE has created a veritable store of DEC computer enhancements. ABLE's unique products help you get more out of your PDP-11. Look at our current product listing . . . you will find solutions of genuine value.

SPECIAL MEMORY PRODUCTS

SCAT/45 (330 nsec Fastbus Memory)
CACHE/45 (2KB Fastbus Cache)
CACHE/434 (8KB Unibus Cache)
CACHE/440 (8KB Unibus Cache)
EMULoader (ODT/Boot Loader)

GENERAL PURPOSE PRODUCTS

QNIVERTER (Dual-Purpose Converter)
UNIVERTER (Converter with Map)
REBUS (DB11-A Replacement)
DUAL I/O (Dual DR11-C)
INTERLINK (DR11-B Replacement)
BUSLINK (DA11-B--Unibus/Q Bus)

COMMUNICATIONS PRODUCTS

QUADRASYNC (4-line DL11)
QUADRASYNC/E (4-line DL11-E)
QUADRASYNC/LSI (4-line DLV11)
QUADRACALL (4-line DN11)
DMAX/16 (DH11 Replacement)
DV/16 (DV11 Replacement)

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